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Inventors: Taylor and Yu
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REMARKS

Claims 1-27 are pending in this application. Claims 1-3, 7-10, 13-16, 19-22, 25 and 26 have been rejected. Claims 1-12, and 17-27 have been canceled. Claims 13, 15, and 16 have been amended. No new matter has been added by this amendment. Reconsideration of the pending claims is respectfully requested in view of the amendments and the following remarks.

I. Election Requirement

The Examiner has made final the election requirement in this case. Further, claims 4-6 have been withdrawn from consideration pursuant to 37 CFR 1.142(b) as being drawn to a non-elected invention, as it is suggested that there is no allowable generic or linking claim. Claims 1-3, 7-8, 13-16, 19-22, 25 and 26 are were examined.

II. Rejection of Claims under 35 U.S.C. §101

Claims 1-3, 7-10, 19-22, 25 and 26 have been rejected under 35 U.S.C. §101 because it is suggested that the claimed invention is directed to non-statutory subject matter. It is suggested that the computational steps/processes of claims 1-3 and 7-10 are merely "mental" processes of performing mathematical operations

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applied to a computer. It is suggested that the claims do not recite any concrete or tangible results and therefore the claims do not recite statutory subject matter. It is further suggested that the computer readable medium of claims 19-22 merely stores instructions for programming a computer with a nonfunctional method. Thus, it is suggested that the computer readable medium cannot impart functionality when employed as a computer component due to the method itself being non-functional data. It is yet further suggested that the profiles of claims 25 and 26 are merely nonfunctional compilations of data and directed to nonstatutory subject matter.

Applicants respectfully disagree. However, in an earnest attempt to facilitate prosecution of this application claims 1-12 and 17-27 have been canceled, thereby mooted this rejection. Withdrawal of this rejection and allowance of the pending claims is requested.

III. Rejection of Claims under 35 U.S.C. §112, first paragraph

Claims 1-3, 7-10, 13-17, 19-22, 25 and 26 have been rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement.

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It is acknowledged that the claimed method executes the adjusting, normalizing and shifting of profiles as a means of transforming chromatographic elution profiles in order to better group the resulting profiles based on shape. However, it is suggested that one skilled in the art would not understand what the transformed profile means; what to do with the information after rearranging data of an original profile; what grouping such transformed profiles would mean and what to do with the group.

It is further suggested that claims 1-3, 7-10, 13-17, 19-22, 25 and 26 are rejected under §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 7, 9, 13, 19 and all claims dependent therefrom are suggested to be vague and indefinite due to the lack of clarity in the action intended by the terms "transform", "transformed", and "transforming".

Claims 1, 13, 19 and all claims dependent therefrom are suggested to be vague and indefinite due to the lack of clarity in the steps of the methodology. It is suggested that steps (c) through (e) are confusing as to the stepwise manner in which the method steps are intended to occur.

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Claims 1, 7, 8, 19 and all claims dependent therefrom are suggested to be vague and indefinite due to the lack of clarity of the claim language in failing to recite a final process step, which agrees back with the preamble. The preamble states that it is a computer implemented method for transforming a plurality of chromatographic elution profiles, however, the final step recites a shifting of profiles along said first axis such that all of the profiles intersect. Claim 7 is suggested to add another step that remains without a final result for it only provides an application to determine whether or not to group the profiles. Claim 8 is suggested to only provide a setup of a divided space and not perform the determination of grouping profiles. Claim 9 and all claims dependent therefrom are suggested to be vague and indefinite due to the lack of clarity of the phrase "the instructions being capable of programming". Claims 19, 21 and all claims dependent therefrom are suggested to be vague and indefinite due to the lack of clarity of that which is contained on the computer readable medium. It is suggested to be unclear if the instructions stored upon the instant medium are limited to programming another computer to perform a method not limited to the one described or if the instructions contain the required

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method steps to perform the instant method as a software program would be specific for the method it was performing.

Applicants respectfully disagree with these rejections. However, to facilitate prosecution of this application, claims 1-12 and 17-27 have been canceled. Therefore, with regard to the rejections under 35 U.S.C. §112, only those rejections pertaining to the pending claims 13-16 are addressed herewith.

With respect to the 35 U.S.C. §112 first paragraph issues, the shifted profiles as set forth in claims 13-16 are those which are adjusted to have a common base line and shifted so that all of the profiles intersect at a pre-selected point allowing viewing and analysis in a standardized format, see page 167, line 9. It is believed that one of skill in the art of analysis of data from chromatographic separation of DNA would fully understand the subject matter claimed in claim 13 as amended. One of skill in the art could routinely compare profiles of interest using the claimed system. Further, while each SNP has a profile, it is not required by the claims that the SNP profiles be unique. The pattern and shape of the resulting chromatograms are influenced by the type and location of the mutation, see page 26 at line 28-29. The system of claim 13 allows the profiles to

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be created which can be viewed and analyzed in a standardized format.

With respect to the 35 U.S.C. §112 second paragraph issues, claim 13 has been amended to clarify that the action intended by the term "transforming" is an action which allows profiles to be viewed and analyzed in a standardized format, as supported throughout the specification and at page 16, line 9.

Further, the steps (c) through (e) of claim 13 have been amended to clarify the order in which the steps progress.

Withdrawal of these rejections and allowance of the pending claims is respectfully requested.

IV. Rejection of Claims under 35 U.S.C. §103

The Examiner has rejected claims 19-22 under 35 U.S.C. §103(a) as being unpatentable over Robbat (U.S. Patent 5,970,804).

It is suggested that the computer readable medium and its method of use of Robbat differ from the claimed invention only in the content, and the method, the computer performs while not in means of programming a computer. In addition, the information contained in the instructions is suggested to not carry

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patentable weight with respect to the novelty/obviousness of the computer readable medium.

Applicants respectfully disagree.

However, in an earnest attempt to facilitate the prosecution, claims 1-12 and 17-27 have been canceled. Accordingly, withdrawal of all objections and rejections to the pending claims is respectfully requested.

V. Claim Objections

Claim 16 is objected to for reciting "the method of claim 15". Claim 16 has been amended to recite the "system" of claim 15, as supported by the specification and claim 15 as filed.

Accordingly, withdrawal of the objection to claim 16 is respectfully requested.

VI. Conclusion

Applicants believes that the foregoing comprises a full and complete response to the Office Action of record. Accordingly,

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favorable reconsideration and subsequent allowance of the pending claims is earnestly solicited.

Respectfully submitted,

A handwritten signature in cursive script that reads "Bridget C. Sciamanna".

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